

Kirei Board

zen modern



Modular Console | Designer: Paul Basile

The Tao of Kirei:

Pronounced "Key'-ray," Kirei is the Japanese character signifying "clean" or "beautiful."

We have chosen Kirei as the name for our company to reflect our dedication to the principles of elegant, sustainable design.



Sink Wrap | Zapher Residence

Kirei Board is a strong, lightweight, durable, environmentally friendly substitute for wood—usable in furniture, cabinetry, casework, and interior design elements. Manufactured from reclaimed sorghum straw and no-added-formaldehyde adhesive, Kirei board brings a beautiful new element to modern interior design.

Use **Kirei Board** in architectural, millwork and finished product applications:

Architectural Millwork	Interior Design
Wall Covering	Cabinetry
Retail Displays	Flooring
Furniture	Restaurant
Finished Products	Hotel

Kirei and LEED

Kirei design elements can help your projects gain LEED credit for environmentally friendly construction.



Signature 2.0 Cabinet
Iannone Design

kirei™

For purchasing information:

Kirei USA
TEL 619-236-9924
FAX 240-220-5946
www.kireiusa.com
info@kireiusa.com

Kirei Board Specifications:

Kirei Board is a composite panel board manufactured from reclaimed stalks of the sorghum plant, poplar wood bonding layers and KR Bond, an adhesive that emits no formaldehyde. Strong, lightweight and environmentally friendly, Kirei Board has been in use for wall covering, cabinetry, furniture, flooring and other decorative and finished products since 1995.

Dimensions:

Sheet Size

6mm: 305mm x 1820mm
(12.0" x 71.7")

10mm, 20mm, 30mm: 910mm x 1820mm
(35.8" x 71.7")

Thickness

6mm (0.24")
10mm (0.39")
20mm (0.79")
30mm (1.18")

Sheet Weight

(1'x6' sheet)	6mm	4.5 lbs
(3'x6' sheet)	10mm	19.0 lbs
(3'x6' sheet)	20mm	35.0 lbs
(3'x6' sheet)	30mm	45.0 lbs

Density

6mm	38.1 lbs/ft3
10mm	32.1 lbs/ft3
20mm	29.6 lbs/ft3
30mm	25.4 lbs/ft3

Physical Properties:

Modulus of Rupture	1800mm	200kg3/cm2
	900mm	75 kg3/cm2
Modulus of Elasticity	1800mm	2.80 x 10 kg3/cm2
	900mm	0.78 x 10 kg3/cm2

Internal Bond	1.5 kg/cm2
Screw Holding Power	Face 25 Kg
	Edge 10 Kg

Fire rating: Class C
(May reach Class A using commercial flame retardants)
Flame spread index 130 (ASTM E84)



Environmental Benefits

Kirei Board reduces forest clear-cutting, air pollution and landfill use. The sorghum stalks used in the manufacture of Kirei Board are a rapidly renewable resource left after the edible portion of the plant is harvested.

Reduced Waste

Until now, these stalks have been discarded or burned, adding to landfill waste and pollution. Kirei Board helps reduce this waste and ease deforestation by substituting for wood.

Zero VOC

In addition, Kirei Board is made with a no-added-urea-formaldehyde adhesive that does not emit toxic formaldehyde.

Kirei Board can be an excellent way to help your projects qualify for LEED credit for environmentally friendly construction.

Kirei Board Adhesive

KIREI board is manufactured using KR Bond, a water-based polymer-isocyanate adhesive. Formaldehyde-free KR Bond does not contribute harmful Volatile Organic Compounds (VOCs) to the indoor atmosphere. Testing according to Japanese Government standard JIS A 6922-2003 resulted in 0.0 mg/L formaldehyde emission.

Fabrication Guidelines

Kirei Board is machinable using standard fabricating techniques applicable for wood-based products.

Cutting:

For best results use a high-quality saw blade, feeding the material at a uniform speed through the saw. Solidly back panels to prevent chipping along kerf on the saw tooth exit side. Finishing material with a sealer coat can help avoid chipping along saw cuts.

Drilling:

A high-speed drill is recommended. To avoid chipout or breakage on the exit side, back the panel with scrap material.

Routing:

A speed of 20,000 RPM is recommended using double-fluted router bits.

Filling:

Standard wood putty can be used to fill any chips or holes caused by cutting and sanding. Select a color that best matches the color of Kirei Board or your finish color.

Fastening:

All fastening methods may be used, including nail, staples, rivets, screws, bolts, glue or combination. Type A or AB, sheet metal, twin fast types and fully threaded screws designed for use in particle board offer better withdrawal resistance than wood screws. Pre-drilled pilot holes are recommended for the size screw used. If nailing, use spiral or ring shank nails for extra holding power.
(Note: Nailing or screwing into edge grain may result in lower screw holding power due to fewer cross-layers being engaged.)

Finishing:

Kirei Board panels can be filled, sealed, painted, stained or varnished with most commercial finishing materials including short and medium oil length primers, fillers, lacquers, and synthetic base coats and topcoats and high temperature bake and acrylic and epoxy systems. The panels should be at stable room temperature (70 degrees F and higher) when coated. Kirei recommends Low-VOC emission finishes.



Modular Storage Unit | Designer: Julia Palomaki

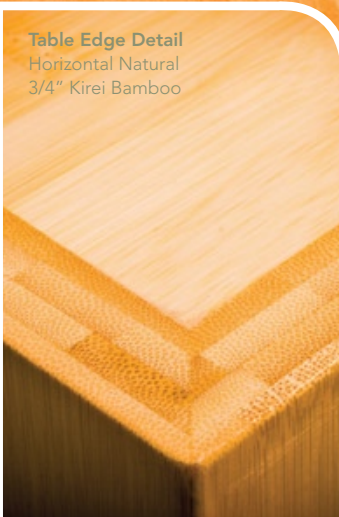
Kirei Bamboo

organic contemporary



Table Edge Detail
Horizontal Natural
3/4" Kirei Bamboo

Table + Chairs | Guild Restaurant
Horizontal Carbonized Kirei Bamboo



The Tao of Kirei:

Pronounced "Key'-ray," Kirei is the Japanese character signifying "clean" or "beautiful."

We have chosen Kirei as the name for our company to reflect our dedication to the principles of elegant, sustainable design.

Kirei Bamboo is an eco-friendly panel material with a variety of surface and millwork looks usable in modern interior design and finished products. Bamboo is a rapidly renewable, sustainable resource, and we use low- or no-added urea formaldehyde for the production of our panels, so Kirei Bamboo can help your projects meet **LEED™** specifications.

Use **Kirei Bamboo** in architectural, millwork and finished product applications:

- | | |
|------------------------|-----------------|
| Architectural Millwork | Interior Design |
| Wall Covering | Cabinetry |
| Retail Displays | Flooring |
| Furniture | Restaurant |
| Finished Products | Hotel |

Kirei and LEED

Kirei design elements can help your projects gain LEED credit for environmentally friendly construction.

Kirei Zero™ NAUF Bamboo

Kirei Zero™ Bamboo panels are manufactured using No Added Urea Formaldehyde (NAUF) adhesive, meeting European E0 and CARB formaldehyde emissions standards. Use of NAUF adhesive reduces formaldehyde emissions and can help your projects gain additional LEED credit for Low Emitting Materials. If your project requires NAUF bamboo, please specify Kirei Zero™ bamboo.



Coffee table, Zebra Horizontal Bamboo
Designer: JL Furnishings

kirei.

For purchasing information:

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TEL 619-236-9924
FAX 240-220-5946
www.kireiusa.com
info@kireiusa.com

Kirei Bamboo Specifications:

Kirei Bamboo is an eco-friendly modern millwork material manufactured from the fast-growing trunks of the Moso Bamboo grass and a low- or-no-added-urea-formaldehyde adhesive. Bamboo Paneling is strong and dense, and can be used in a wide variety of millwork applications.

Kirei Bamboo Panels:

Panel Size 1220mm x 2440mm (48"x96")

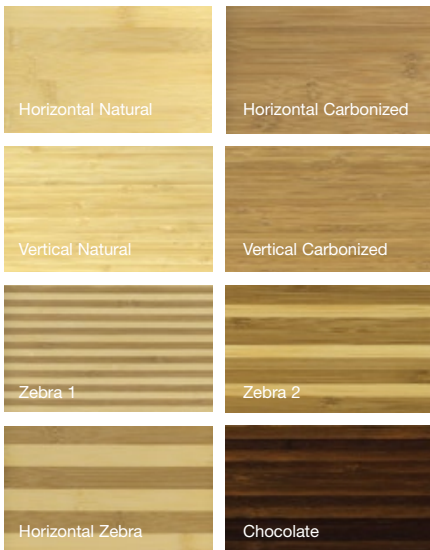
Thickness 1/4", 1/2", 3/4"

Custom panel sizes & thicknesses available

Face Grain Styles Horizontal
Vertical
Zebra

Lamination Styles Solid
3-Ply Horizontal Core
3-Ply Vertical Core
2-Ply

Colorways



Kirei Bamboo Veneer

Sheet Size 2500mm x 1250mm (98.4" x 49.2")

2500mm x 430mm (98.4" x 16.9")

Thickness 0.6mm (1/42")



Kirei Bamboo Edge Tape

Width 22mm (7/8")

44mm (1-3/4")

Thickness 0.6mm (1/42")

Roll Length 50', 500'



Kirei Bamboo Countertop

Width 2440 x 635 x 38 mm (8' x 25" x 1-1/2")

2440 x 1220 x 38 mm (8' x 4' x 1-1/2")

Thickness 1.5"

Colorways Natural, Carbonized



Environmental Benefits

Rapidly Renewable

Kirei Bamboo reduces forest clear-cutting and indoor air pollution. Bamboo is a rapidly renewable resource with a fast growth cycle, resulting in higher material yield per acre than tree planting. (Panda Safe!)

Low or No Added Formaldehyde

In addition, Kirei Bamboo is made using a low- or no-added formaldehyde MDI adhesive. Specify Kirei Zero™ NAUF Bamboo panels if your project requires No-Added-Urea-Formaldehyde bamboo.

LEED

Kirei Bamboo can be an excellent way to help your projects qualify for LEED credit for environmentally friendly construction.

Fabrication Guidelines

Kirei Bamboo is machinable using standard fabricating techniques applicable for wood-based products.

Cutting:

For best results use a high-quality saw blade, feeding the material at a uniform speed through the saw. Solidly back panels to prevent chipping along kerf on the saw tooth exit side. Finishing material with a sealer coat can help avoid chipping along saw cuts.

Drilling:

A high-speed drill is recommended. To avoid chipout or breakage on the exit side, back the panel with scrap material.

Routing:

A speed of 20,000 RPM is recommended using double-fluted router bits.

Filling:

Standard wood putty can be used to fill any chips or holes caused by cutting and sanding. Select a color that best matches the color of Kirei Bamboo or your finish color.

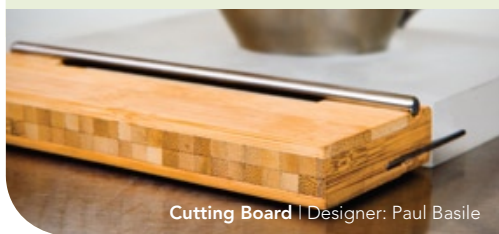
Fastening:

All fastening methods may be used, including nail, staples, rivets, screws, bolts, glue or combination. Type A or AB, sheet metal, twin fast types and fully threaded screws designed for use in particle board offer better withdrawal resistance than wood screws. Pre-drilled pilot holes are recommended for the size screw used. If nailing, use spiral or ring shank nails for extra holding power.

(Note: Nailing or screwing into edge grain may result in lower screw holding power due to fewer cross-layers being engaged.)

Finishing:

Kirei Bamboo panels can be filled, sealed, painted, stained or varnished with most commercial finishing materials including short and medium oil length primers, fillers, lacquers, and synthetic base coats and topcoats and high temperature bake and acrylic and epoxy systems. The panels should be at stable room temperature (70 degrees F and higher) when coated. Kirei recommends Low-VOC emission finishes.



Cutting Board | Designer: Paul Basile

Kirei WheatBoard

clean, green MDF



Kirei WheatBoard is the answer to formaldehyde-emitting wood MDF products. With working characteristics meeting and often surpassing those of commercially available MDF or particle board, plus renewable source materials and non-toxic adhesives, Kirei WheatBoard gives you a clean slate to build what your mind designs. Projects and products can receive **LEED™** credit for rapidly renewable material, recycled content, and indoor air quality.

Use **Kirei WheatBoard** in architectural, millwork and finished product applications:

- | | |
|------------------------|-----------------|
| Architectural Millwork | Interior Design |
| Wall Covering | Cabinetry |
| Retail Displays | Flooring |
| Furniture | Restaurant |
| Finished Products | Hotel |

IT'S WHAT'S INSIDE.

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Kirei WheatBoard Specifications:

Use Kirei WheatBoard in millwork, cabinetry and finished product applications for a renewable, non-toxic alternative to MDF or particleboard. Kirei WheatBoard can be painted or laminated with a wide variety of surface treatments including our Kirei Bamboo Veneers.

Dimensions:

Sheet Size	1220mm x 2440mm (48"x96")
Standard Thicknesses	12.7mm (1/2") 19.1mm (3/4") Tolerance +/- 0.005"
Sheet Weights	
1/2"	54 lbs
3/4"	81 lbs

(Larger sizes available for laminating applications)
Custom thicknesses & sizes available

Density	750 kg/m ³ +/- 50 kg/m ³
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Physical Properties:

Modulus of Rupture	2176 psi
Modulus of Elasticity	311,832 psi
Internal Bond	79.77 psi
Screw Holding Power Perpendicular to Plane	247 lbf
Withdrawal from Edge	157 lbf
Thickness Swell (24-hour immersion)	8%
Water Absorption (24-hour immersion)	20%
Moisture Content	8%



Environmental Benefits

Kirei WheatBoard reduces forest clear-cutting, air pollution and landfill use. The wheat stalks used in the manufacture of Kirei WheatBoard are a rapidly renewable resource left after the edible portion of the plant is harvested.

Reduced Waste

Until now, these stalks have been discarded or burned, adding to landfill waste and pollution. Kirei WheatBoard helps reduce this waste and ease deforestation by substituting for wood.

Zero VOC

In addition, Kirei WheatBoard is made with a no-added-urea-formaldehyde adhesive that does not emit toxic formaldehyde.

Kirei WheatBoard and LEED

Kirei WheatBoard can be an excellent way to help your projects qualify for LEED credit for environmentally friendly construction.

Kirei WheatBoard Adhesive

KIREI WheatBoard is manufactured using a no-added-urea formaldehyde MDI adhesive which does not contribute harmful Volatile Organic Compounds (VOCs) to the indoor atmosphere.



Fabrication Guidelines

Kirei WheatBoard is machinable using standard fabricating techniques applicable for wood-based products.

Cutting:

For best results use a high-quality saw blade, feeding the material at a uniform speed through the saw. Solidly back panels to prevent chipping along kerf on the saw tooth exit side. Finishing material with a sealer coat can help avoid chipping along saw cuts.

Drilling:

A high-speed drill is recommended. To avoid chipout or breakage on the exit side, back the panel with scrap material.

Routing:

A speed of 20,000 RPM is recommended using double-fluted router bits.

Filling:

Standard wood putty can be used to fill any chips or holes caused by cutting and sanding. Select a color that best matches the color of Kirei WheatBoard or your finish color.

Fastening:

All fastening methods may be used, including nail, staples, rivets, screws, bolts, glue or combination. Type A or AB, sheet metal, twin fast types and fully threaded screws designed for use in particle board offer better withdrawal resistance than wood screws. Pre-drilled pilot holes are recommended for the size screw used. If nailing, use spiral or ring shank nails for extra holding power.

(Note: Nailing or screwing into edge grain may result in lower screw holding power due to fewer cross-layers being engaged.)

Finishing:

Kirei WheatBoard panels can be filled, sealed, painted, stained or varnished with most commercial finishing materials including short and medium oil length primers, fillers, lacquers, and synthetic base coats and topcoats and high temperature bake and acrylic and epoxy systems. The panels should be at stable room temperature (70 degrees F and higher) when coated. Kirei recommends Low-VOC emission finishes.

Edge Treatment:

The exposed edges of Kirei WheatBoard are intended to be finished, unless the type of application does not require a more finished appearance than sanding affords. If shaped exposed edges are required, filling, sanding and painting of the edge will provide a satisfactory finish. Kirei WheatBoard can be edge banded with most commercial edge treatments using standard adhesives.

Kirei Coco Tiles

novo tropicale



THE
Sumatra
Collection



Kirei Coco Tiles are modern interiors gone vacation! Made from reclaimed coconut shells, low-VOC resins and sustainably harvested wood backer, our newest family of eco-friendly design materials can be used as decorative tiles or panels both horizontally and vertically. Featuring multiple patterns and color combinations and available in light, dark and mixed textures, Kirei Coco Tiles create a variety of surfaces to add to your palette.

Use **Kirei Coco Tiles** for new decorative ideas in residential, commercial, finished product and hospitality applications:

Architectural Millwork	Interior Design
Wall Covering	Cabinetry
Retail Displays	Furniture
Finished Products	Restaurant
Spa	Hotel

Kirei Coco Tiles and LEED

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Kirei Coco Tile Specifications:

Kirei Coco Tiles are decorative tiles and panels manufactured using reclaimed coconut shells left over after harvest, low-VOC resin and sustainably harvested wood backer. Use Kirei Coco Tiles in wall covering, furniture and interior design to bring a bit of the island life to modern design.

The Sumatra Collection



Batak KC-001

Toba KC-002

Banda KC-003

Tanjung KC-004

Malacca KC-005

Cinta KC-006



Bintang KC-007

Padang KC-008

Selaka KC-009

Hinako
(Ebon) KC-010 E
(Ivory) KC-010 I

Batam KC-011

Jambi
(Unfilled) KC-012 U
(Filled) KC-012 F

Coco Tile/Panel Dimensions:

Tiles 30cm x 30cm
(11.8" x 11.8")

Panels 120cm x 120cm
(47.2" x 47.2")

Thickness

Backer 9mm

Overall Varies by chip style

Fire Rating Class C

Environmental Benefits

Kirei Coco Tiles reduce landfill waste and air pollution. The shells used are a rapidly renewable resource left after the edible portion of the coconut is harvested.

Reduced Waste

Until now, these shells have been discarded or burned, adding to landfill waste or air pollution.

Sustainably Harvested Backer

Tile backer material is made using sustainably harvested wood from sustainably managed forests (FSC certification pending).

Resins and Adhesives

Only low- or zero VOC resins are used in the construction of Kirei Coco Tiles, helping to lessen harmful pollutants in our ambient atmosphere.

Kirei Coco Tiles and LEED

Kirei design elements can help your projects gain LEED credit for environmentally friendly construction.

Fabrication Guidelines

Kirei Coco Tiles are a unique handmade tile backed with 9mm sustainably harvested wood (FSC certification pending). Standard wood tile-setting guidelines should be followed, including proper conditioning and installation.

Conditioning:

Kirei Coco Tiles should be conditioned for a minimum of 72 hours before installation. This will allow tiles to adjust to the ambient local temperature and humidity level.

Installation:

Kirei Coco Tiles can be installed directly over framing members—studs or furring strips (check building codes in your area). All coco tiles may be put up with a combination of panel adhesive and nails.

Cutting:

Kirei Coco Tiles can be cut with standard tile saws. We recommend at least 4000 rpm blade speed and a high-quality blade with fine teeth.- do not use water as this may cause swelling of the wood backer. Chipping along the cut edge may occur; the chips may be repaired with normal woodworking adhesive. It is recommended to cut in between chips. Cutting through chips may result in chip loss.

